

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1. (currently amended) A coating to be applied to an electrically conductive material, said coating being non-electroplated, consisting of more than ~~1.0~~ 2.0 wt% to about 20 wt% silver and the balance tin, having a melting point greater than 225°C, and a hardness in the range of from 0.32 to 0.41 GPa.

Claim 2. (original) A coating according to claim 1, wherein said silver content in said coating is in the range of from 2.0 wt% to 15 wt%.

Claim 3. (original) A coating according to claim 1, wherein said silver content in said coating is in the range of from 3.0 wt% to 10 wt%.

Claim 4. (original) A coating according to claim 1, wherein said coating has a thickness in the range of from 0.00001" to 0.001".

Claims 5-6 (cancelled)

Claim 7. (currently amended) A coating material consisting of more than ~~1.0~~ 2.0 wt% to 20 wt% silver, at least one addition selected from the group consisting of bismuth, silicon, ~~copper~~, magnesium, iron, manganese, zinc, and antimony in an amount effective to increase coating hardness up to 5.0 wt%, and the balance tin, said coating material being non-electroplated and having a hardness in the range of from 0.32 GPa to 0.41 GPa.

Claim 8. (original) A coating material according to claim 7, wherein said silver content of said coating material is in the range of from 2.0 wt% to 15 wt%.

Claim 9. (original) A coating material according to claim 7, wherein said silver content of said coating material is in the range of from 3.0 wt% to 10 wt%.

Claim 10. (previously presented) A coating material according to claim 7, wherein said at least one addition is present in an amount which does not cause the formation of deleterious oxides.

Claim 11. (previously presented) A coating material according to claim 10, wherein said at least one addition is present in an amount ranging from 0.1 wt% to said amount which does not cause the formation of deleterious oxides.

Claim 12. (original) A coating material according to claim 7, wherein said coating has a thickness in the range of from 0.00001" to 0.001".

Claim 13. (cancelled)

Claim 14. (original) A coating material according to claim 7, wherein said coating material is a non-electroplated material and has a melting point greater than 225°C.

Claim 15. (currently amended) A composite comprising a substrate material and a non-electroplated layer of coating material on at least a portion of said substrate material and said coating

material consisting of ~~more than 1.0~~ 2.0 wt% to ~~about~~ 20 wt% silver, copper in a range from ~~0.1~~ 2.5 wt% to 5.0 wt%, and the balance tin and having a hardness in the range of from 0.32 to 0.41 GPa.

Claim 16. (original) A composite according to claim 15, wherein said silver content of said coating material is in the range of from 2.0 wt% to 15 wt%.

Claim 17. (original) A composite according to claim 15, wherein said silver content of said coating material is in the range of from 3.0 wt% to 10 wt%.

Claim 18. (previously presented) A composite according to claim 15, wherein said substrate material comprises a non-ferrous based material.

Claim 19. (original) A composite according to claim 15, wherein said substrate material comprises a copper-tellurium alloy.

Claim 20. (original) A composite according to claim 15, wherein said coating material directly contacts a surface of said substrate material.

Claim 21. (original) A composite according to claim 15, wherein said coating material has a melting point greater than 225°C.

Claim 22. (cancelled)

Claim 23. (original) A composite according to claim 15, wherein said coating material has a thickness in the range of from 0.00001" to about 0.001".

Claim 24. (original) A composite according to claim 15, wherein said composite comprises an electrical connector.

Claim 25. (currently amended) A composite comprising a substrate material and a non-electroplated layer of coating material over at least a portion of said substrate material, and said coating material consisting of ~~more than 1.0~~ 2.0 wt% to 20 wt% silver, at least one addition selected from the group consisting of bismuth, silicon, ~~copper~~, magnesium, iron, manganese, zinc, and antimony in an amount effective to increase coating hardness up to 5.0 wt%, and the balance tin, and said coating material being non-electroplated and having a hardness in the range of from 0.32 GPa to 0.41 GPa.

Claim 26. (original) A composite according to claim 25, wherein said silver is present in an amount from 2.0 wt% to 15 wt%.

Claim 27. (original) A composite according to claim 25, wherein said silver is present in an amount from 3.0 wt% to 15 wt%.

Claim 28. (previously presented) A composite according to claim 25, wherein said substrate material is formed from a non-ferrous based material.

Claim 29. (original) A composite according to claim 25, wherein said substrate material is formed from a copper-tellurium alloy.

Claim 30. (cancelled)

Claim 31. (original) A composite according to claim 25, wherein said coating material has a thickness in the range of from 0.00001" to 0.001".

Claim 32. (cancelled)

Claim 33. (previously presented) A composite according to claim 25, wherein said at least one addition is present in an amount from 0.1 wt% up to an amount which does not create deleterious oxides.

Claim 34. (original) A composite according to claim 25, wherein said coating material directly contacts a surface of said substrate material.

Claim 35. (original) A composite according to claim 25, wherein said coating material has a melting point greater than 225°C.

Claim 36. (cancelled)

Claim 37. (previously presented) A process according to claim 39, wherein said preparing step comprises preparing a bath consisting of from 2.0 wt% silver and the balance tin.

Claim 38. (previously presented) A process according to claim 39, wherein said preparing step comprises preparing a bath consisting of from 3.0 wt% to 10 wt% silver and the balance tin.

Claim 39. (currently amended) A process for coating a substrate material comprising the steps of:

providing a substrate material to be coated;

preparing a bath consisting of ~~more than 1.0~~ 2.0 wt% to ~~about~~ 20 wt% silver and the balance tin;

immersing said substrate material in said bath to form a non-electroplated coating layer on said substrate material, which coating layer consists of ~~more than 1.0~~ 2.0 wt% silver and the balance tin and which coating has a hardness in the range of 0.32 GPa to 0.41 GPa; and

maintaining said bath at a temperature greater than 500°F during said immersing step.

Claim 40. (original) A process according to claim 39, wherein said maintaining step comprises maintaining said bath at a temperature of from 500°F to 900°F during said immersing step.

Claim 41. (previously presented) A process according to claim 39, wherein said immersing step comprises continuously passing said substrate material through said bath.

Claim 42. (previously presented) A process according to claim 39, wherein said immersing step comprises discontinuously passing said substrate material through said bath.

Claim 43. (previously presented) A process according to claim 39, wherein said immersing step comprises immersing a batch of

said substrate material into said bath and maintaining said batch within said bath for a time period sufficient to form said coating.

Claim 44. (previously presented) A process according to claim 39, further comprising keeping said substrate material resident in said bath for a time period in the range of 0.2 seconds to 10 seconds.

Claim 45. (previously presented) A process according to claim 39, further comprising applying a lubricant to surfaces of said substrate material after said immersing step.

Claim 46. (currently amended) A process for forming a non-electroplated coating on a substrate material comprising the steps of:

preparing a bath consisting of ~~more than 1.0~~ 2.0 wt% to ~~about~~ 20 wt% silver, at least one addition selected from the group consisting of bismuth, silicon, ~~copper~~, magnesium, iron, manganese, zinc, and antimony in an amount effective to increase coating hardness up to 5.0 wt%, and the balance tin; and

maintaining said bath at a temperature of at least 500°F;
and

immersing said substrate material in said bath for a resident time period of from 0.2 to 10 seconds.

Claim 47. (original) A process according to claim 46, wherein said immersing step comprises continuously passing said substrate material through said bath.

Claim 48. (original) A process according to claim 46, wherein said immersing step comprises discontinuously passing said substrate material through said bath.

Claim 49. (original) A process according to claim 46, wherein said immersing step comprises introducing a batch of said substrate material into said bath.

Claim 50. (original) A process according to claim 46, wherein said maintaining step comprises maintaining said bath at a temperature in the range of 500°F to 900°F.

Claim 51. (previously presented) A composite material comprising a continuous length of strip material formed from a non-ferrous material and a non-electroplated coating on surfaces of said strip material to prevent surface oxidation of said strip material, said coating consisting of from 2.0 wt % to 20 wt% silver and the balance tin and having a hardness in the range of from 0.32 to 0.41 GPa.